

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/001847

A. CLASSIFICATION OF SUBJECT MATTER**IPC7 D06F 33/02**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 D06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975.

Korean Utility Models and applications for Utility models since 1975.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4,843,671(Mitsubishi Denki Corp.) 4 JULY 1989 See the whole document	1-15
Y	US 5,092,140(Toshiba Corp.) 3 MARCH 1992 See Fig. 2, Claims 1-7	10-13
Y	US 5,570,596(Toshiba Corp.) 5 NOVEMBER 1996 See Fig.3, Fig.11, Claims 1-6	14,15

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

19 OCTOBER 2004 (19.10.2004)

Date of mailing of the international search report

20 OCTOBER 2004 (20.10.2004)

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/KR2004/001847

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4,843,671	04-07-1989	JP 61-137656	27-08-1986
		JP 62-122695	03-06-1987
		JP 62-122696	03-06-1987
US 5,092,140	03-03-1992	JP 04-020379	23-01-1992
US 5,570,596	05-11-1996	JP 08-010493	16-01-1996
		JP 08-024477	30-01-1996